PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	10/674,667
Filing Date:	September 30, 2003
Applicant:	Francis M. Creighton IV, et al.
Group Art Unit:	3777
Examiner:	John Fernando Ramirez
Title:	EFFICIENT MAGNET SYSTEM FOR MAGNETICALLY-ASSISTED SURGERY
Attorney Docket:	5236-000440/US

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY BRIEF

Sir:

In response to the Examiner's Answer of October 19, 2010, Applicant has provided the following Remarks.

1st GROUND OF REJECTION ON APPEAL

Is the invention set forth in claims 39-41, 45-47 and 51-52 anticipated by Kioke et al?

Appellant respectfully submits that independent claims 39, 41 and 45 are not anticipated because *Koike* fails to teach the required elements of a compound magnet assembly that provides a magnetic field at an operating point spaced from the front face of the compound magnet assembly.

The Examiner's Answer states (on page 6) that Applicant has argued *Kioke* does not disclose magnet segments *arranged in a parallel manner*. However, Appellant is arguing that *Kioke* does not disclose the claimed compound magnet assembly, because *Kioke et al* utilize separate magnets 62, 62' that are "isolated from each other" and separate magnets 66, 66' that are "isolated from each other" that provide magnetic fields in air gaps (64, 64', 68, 68') ***inside a stator***, as disclosed in *Kioke*, col. 5, ll. 28-42, and shown in Fig's 3-4 reproduced below.

FIG. 4

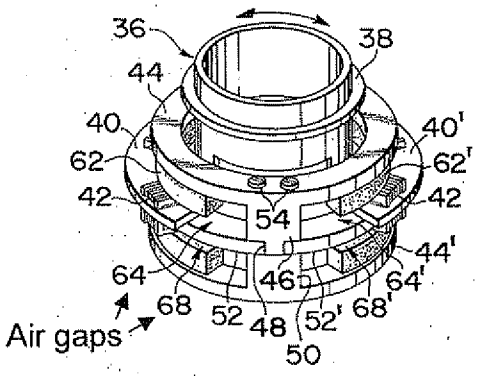
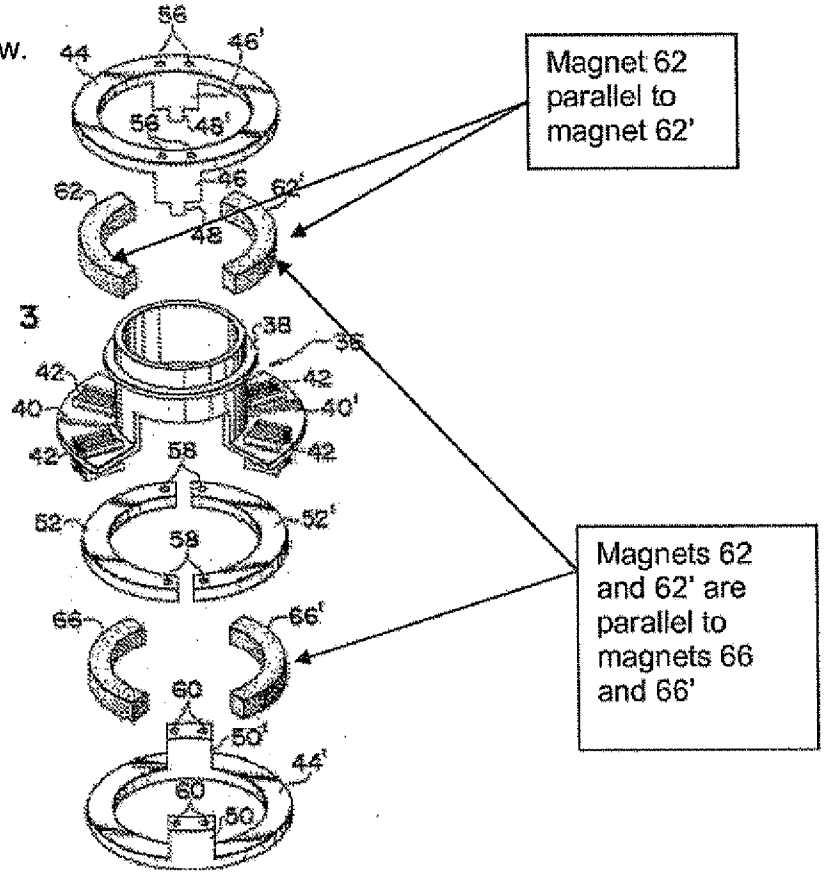


FIG. 3



Thus, *Kioke* does not disclose magnet segments arranged to form a compound magnet assembly, which provides a magnetic field at an operating point spaced from the front face of the compound magnet assembly, as interpreted consistent with the specification. The Federal Circuit has maintained that a term in a cited reference cannot reasonably be construed to describe a claimed limitation in a manner that is inconsistent with that disclosed in the specification. (*See In re Buszard*, 504 F.3d 1364, 84 U.S.P.Q.2d 1749 (2007)).

The Examiner's Answer further states (on page 8) that the features upon which Appellant relies (segments arranged in a parallel manner) are not recited in the claims. However, the claim feature that Appellants are relying on, which is not taught in *Kioke*, is the structure of a compound magnet assembly shown below in Applicant's Fig's 10 and 13, which were depicted in the Final Office Action.

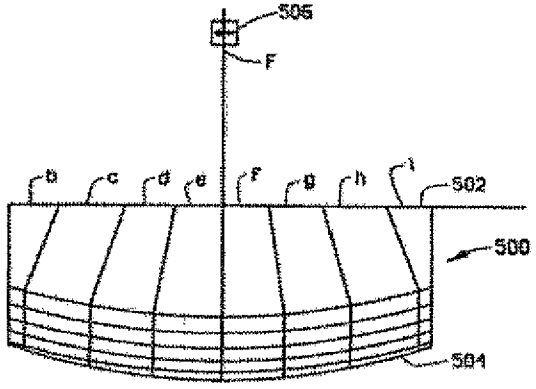


FIG. 10

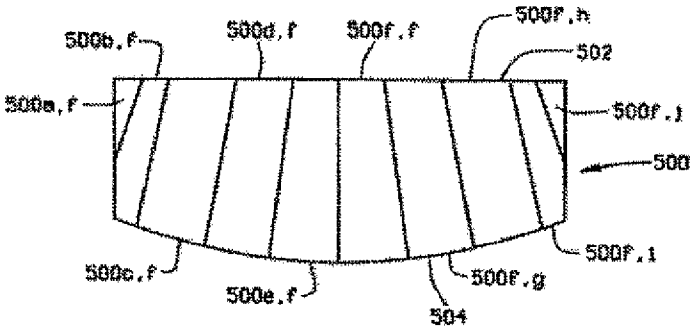


FIG. 13

Moreover, the claims require a compound magnet having segments that are magnetized to provide a magnetic field in a selected direction at a selected operating point (506) spaced from the front face of the compound magnet.

The Examiner's Answer states (on page 5) that *Kioke* discloses an operating point spaced from the center of the assembled magnet. However, *Kioke* has separate magnets 62, 62' that generate a magnetic field in diametrically opposed air gaps (64, 64') *inside Kioke's stator*, and separate magnets (66, 66') that generate another magnetic field in diametrically opposed air gaps (68, 68') *inside Kioke's stator*. (see col. 5, ll. 33-45).

Kioke's separate magnets that generate magnetic fields in different air gaps inside of *Kioke's* stator cannot be reasonably interpreted consistent with Applicant's specification to read on a compound magnet assembly that generates a magnetic field at an operating point spaced from the front of the magnet, as explained below.

In an earlier April 19, 2007 Office Action rejection that was reversed by the Board of Patent Appeals,[1] the Board ruled a *Holcomb* reference disclosing (4) separate magnets providing magnetic fields in different locations did not anticipate a compound magnet assembly providing a magnetic field at an operating point spaced from the magnet.

Much like the Board's conclusion that *Holcomb's* (4) separate magnets could not define a compound magnet assembly providing a magnetic field at an operating point spaced from the magnet, *Kioke's* (4) separate magnets (62, 62', 66, 66') that establish fields in different gap locations inside *Kioke's* stator similarly can not define the claimed compound magnet assembly for providing a magnetic field at an operating point spaced from the magnet. Furthermore, *Kioke's* magnetic fields in separate air gap locations within the inside of a stator assembly cannot be reasonably interpreted to disclose the claimed field at an operating point spaced from the front face of the magnet, as interpreted consistent with Applicant's specification by one of ordinary skill in the art. This follows the reasoning in the Board's decision overturning the April 19, 2007 rejection, in which the Board concluded that one of ordinary skill in the art would not interpret the claimed compound magnet assembly that provides a field at an operating point spaced from the magnet as encompassing *Leupold's* cylindrical magnet 40 that produces a field within a cavity (17, 44).[2]

Much like the Board's determination that *Leupold's* field H within an internal magnet cavity (17, 44) was too constraining to be useful as an operating point, *Kioke's* (4) separated magnets (62, 62', 66, 66') that establish magnetic fields in airgaps inside *Kioke's* cylindrical structure (*Kioke*, col. 2, ll. 29-55), cannot be reasonably interpreted as a field at an operating point spaced from the front face of the magnet.

---

[1] *See Ex parte Francis Creighton, Appeal 2008-4386, (Aug. 15, 2008), p. 9-11; US Pat. Appl. 10/674,667.*
[2] *Id. at 8-9.*

Kioke's (4) separated magnets (62, 62', 66, 66') that establish fields within airgaps inside *Kioke's* assembly can no more provide a field at the operating point spaced from the front face of the compound magnet assembly than *Leupold's* magnet could define a magnetic field spaced from *Leupold's* magnet. A person of ordinary skill in the art would not have reasonably construed *Kioke's* (4) separate magnets (62, 62', 66, 66') establishing fields in different airgaps inside of *Kioke's* assembly to read on the claimed field at an operating point spaced from the front face of the compound magnet assembly (as interpreted consistent with the specification). Thus, the Applicant submits that *Kioke's* separate magnets generating magnetic fields in airgaps within *Kioke's* device fails to disclose the claimed compound magnet assembly providing a field at an operating point spaced from the front face of the compound magnet assembly (or a compound magnet assembly applying magnetic field in a selected direction at a selected operating point where the magnet assembly comprises a front face generally facing the operating point, as in claim 45). Additionally, *Kioke's* separate magnets (62, 62', 66, 66') do not disclose the claimed feature in claims 41 and 45 of a surface of constant contribution to the magnetic field in the selected direction at the operating point. As such, the Applicants submit that independent claims 39, 41, 45, and claims 40, 46-47 and 51-52 that ultimately depend from claims 39, 41, 45, are not anticipated.

For the foregoing reasons, the Appellants submit that claims 39-41, 45-47 and 51-52 are not anticipated by *Kioke et al.* (U.S. Pat. No. 3,971,963).

Accordingly, the rejections of claims 39-41, 45-47 and 51-52 should be reversed for the reasons set forth in Applicants' Brief on Appeal and in this Reply Brief.

Respectfully submitted,

Kevin M. Pumm, Reg. No. 49,046
Harness, Dickey & Pierce, P.L.C.
7700 Bonhomme Avenue, Suite 400
St. Louis, MO 63105
(314) 726-7500

Date: December 20, 2010

CERTIFICATE OF TRANSMITTAL

I certify that on December 20, 2010, APPLICANTS' REPLY BRIEF was electronically filed with the U.S. Patent and Trademark Office, address to Commissioner for Patents, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450.

Kevin M. Pumm, Reg. No. 49,046

60754240.1